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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KLINKEL, KORTNEY L

ART UNIT

PAPER NUMBER

1611

MAIL DATE

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12/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,156	Applicant(s) STERN ET AL.	
	Examiner Kortney L. Klinkel	Art Unit 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 8-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/17/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/17/2009 has been entered.

Acknowledgement is made of the remarks and amendments filed 9/17/2009. Independent claim 1 was amended. Claims 1-16 are pending. Claims 8-16 remain withdrawn for being directed to a non-elected invention. Claims 1-7 are under consideration in the instant Office action.

Objection to the Specification--Withdrawn

The objection to the disclosure because of the following informalities is **withdrawn**: As first noted in the Office action dated 12/16/2008, the use of a large number of trademarks has been noted in this application. Trademarks should be capitalized wherever they appear and be accompanied by their generic terminology. For example, the use of the trademark BIODAC® appears multiple times throughout the specification. However, there is never any mention of what it consists of other than it is a granular composition. No mention is made of what the granules are.

The objection is withdrawn in light of the 37 CFR 1.132 Declaration submitted 9/17/2009 which shows that at the time of the instant invention, BIODAC® granules are a cellulose complex that is a mixture of paper fiber, kaolin, calcium carbonate, and titanium dioxide.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelley (US 5556631) as evidenced by Bush et al. (US 4404339) and the MSDS for glycerol trioleate (Triolein), accessed 5/20/2009 from www.sigma-aldrich.com.

Kelley teaches various pesticidal granules made of a cellulosic carrier having surfactants (abstract). Example 7 describes a pesticidal granule composed of 94.95% peanut hulls, 0.05% deltamethrin, and 5.00% glycerol trioleate. Peanut hulls are cellulosic carriers (col. 1, lines 59-60). Deltamethrin is a pyrethroid insecticide (col. 5, lines 12-14). Glycerol trioleate is a known nonionic surfactant as evidenced by Bush et al. see col. 7, line 58. Glycerol trioleate is a liquid at room temperature as evidenced by the MSDS for glycerol trioleate (Triolein).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley (US 5556631) as evidenced by Bush et al. (US 4404339) and the MSDS for glycerol trioleate (Triolein), accessed 5/20/2009 from www.sigma-aldrich.com.

The teachings of Kelley as evidenced by Bush et al. and the MSDS for glycerol trioleate are set forth above. The specific teachings of Kelley fail to anticipate the composition wherein the pyrethroid insecticide is pyrethrin or bifenthrin of claim 4, or the composition having at least one agricultural adjuvant. However, Kelley also teaches that pyrethrin in addition to deltamethrin are pyrethroid insecticides (col. 5, lines 12-14). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to substitute pyrethrin for deltamethrin in the composition of Kelley with a reasonable expectation for success. One would have been motivated to do so because pyrethrin and deltamethrin are both known pyrethroid insecticides. It is prima facie obvious, absent evidence to the contrary, to substitute one known functional equivalent for another. One of ordinary skill in the art would be imbued with the reasonable expectation that such a substitution would result in a composition useful as a pesticide.

Kelley also teaches several examples having a cellulosic granular carrier, an insecticide, a surfactant and at least one agricultural adjuvant (see examples 4, 6 and 8). Furthermore, Kelley teaches several adjuvants useful in the composition, a few of which are listed in column 2, lines 20-23. It would have been prima facie obvious to one of ordinary skill in the art to add a agricultural adjuvant to the composition of example 7 of Kelley with a reasonable expectation for success. One would have been motivated to do so because Kelley teaches that agricultural adjuvants are commonly added to pesticide granules having cellulose carriers, insecticides and surfactants. One may be

motivated to add an adjuvant to the composition of example 7 to adjust the density of the composition, or to adjust the water solubility or permeability of resulting granules.

Response to Arguments

Applicant's arguments filed 9/17/2009 in response to the rejection of claims over Kelley as evidenced by Bush et al. and the MSDS for glycerol trioleate (Triolein) have been fully considered but are not persuasive.

Applicant argues that glycerol trioleate (triolein) is not a surfactant, but a fat. Therefore applicant concludes that Kelley fails to recite a pesticide composition that comprises a nonionic surfactant and therefore cannot anticipate or render obvious the instant claims. This argument is not persuasive.

The prior art (Bush et al.) clearly teach that glycerin trioleate is a nonionic surfactant. A surfactant is an amphilic compound with hydrophobic and hydrophilic parts. The trioleate tails are the hydrophobic portion of the surfactant and the ester head-groups are the hydrophilic portion of the surfactant. Applicant further argues that Kelley teaches "forming a uniform hydrophobic coating on the carrier" to promote water resistance (col. 1, lines 53-54) in reference to why glycerin trioleate is used. This argument is not persuasive. The fact that glycerin trioleate is used by Kelley to impart a hydrophobic coating on the surface of the granules does not preclude it from being a surfactant. As addressed above glycerin trioleate has both hydrophobic and hydrophilic groups meaning that the hydrophobic tails are the source of the hydrophobicity of the coating. Applicant further argues that Bush et al. use the term surfactant improperly because Bush lists liquid vegetable and animal fats and oils as surfactants. This

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argument is not persuasive. Vegetable and animal fats are made up from several different molecules, including triglycerides. Triglycerides, like glycering trioleate have both a hydrophobic and hydrophilic region and are thereby considered to be surfactants.

Additionally applicant argues that Kelley teaches modifying the surface of the carrier of the pesticide which is different than what applicant's goal is. Applicant's goal is to use a surfactant to overcome the affinity/binding of the pesticide to the inert carrier so that the pesticide is released from the inert carrier and enters the environment where it is effective. This argument is not persuasive to overcome the above rejections. The desired outcome or intended use of the claimed composition is not relevant to the patentability of the claims. It is not inventive to discover a previously undiscovered property of a composition. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The properties imparted by the surfactant are inherent to the surfactant. As Kelley teaches all the elements of the instant claims, the claims are properly rejected.

Claims 1 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vrabel et al. (US 6004904, as per applicants' IDS) as evidenced by the MSDS for Rhodafac RE 610 (Ashland, updated 1/26/1998) and the MSDS for Igepal CA-630 (revised 4/2/2003).

Vrabel teaches a pesticidal granule which comprises 0.38% pesticide, 1% Igepal CA 630 surfactant, 1.0% Rhodafac RE610, 7.0% N-methylpyrrolidine solvent (an agricultural adjuvant), and 90.62% Biodac 20/40 granules (Example 2, column 7). Biodac is a cellulosic granular carrier. Rhodafac RE610 is a nonylphenol polyethoxyate phosphate ester anionic surfactant and Igepal CA 630 is an ethoxylated octylphenol nonionic surfactant, both of which are liquids at room temperature (Igepal CA-630 MSDS page 2 and Rhodafac RE610 MSDS page 5). Vrabel also teaches that it is customary for such pesticidal granule compositions to comprise anywhere from 0.5 to 15% surfactant (col. 4, lines 24-25). The surfactant can be either ionic, nonionic or a mixture of the two (col. 3, lines 55-56)The purpose of the surfactant is to act as an emulsifying or wetting agent and the use of at least one surfactant is required because the active ingredients are typically not water soluble (col. 3, lines 55-65).

Vrabel fails to teach a specific example having from 4 to 15 % nonionic surfactant, but rather teaches a specific example having 2% total surfactant, half of which is nonionic, and generally teaches that typical pesticide granules can have from 0.5 to 15% surfactant. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to arrive at a pesticide granule composition having from 4-15% nonionic surfactant with a reasonable expectation for success. One would have been motivated to do so because nonionic surfactants are known in the art to enable water insoluble active ingredients to form emulsions in aqueous solution which then allows for their even dispersal on the cellulose carrier granules. Vrabel teaches that the active ingredients are not soluble in water (col. 3, lines 63-65),

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therefore one would be motivated to add a surfactant to the composition in order to enhance homogeneity of the coating. Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). One would be motivated to adjust the relative amount of surfactant in order to achieve optimal results, such as solubility or emulsification of the active ingredient.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vrabel et al. (US 6004904, as per applicants’ IDS) as evidenced by the MSDS for Rhodafac RE 610 (Ashland, updated 1/26/1998) and the MSDS for Igepal CA-630 (revised 4/2/2003) in further view of Turnbull (US 5705516).

The teachings of Vrabel as evidenced by the MSDS for Rhodafac RE 610 and the MSDS for Igepal CA-630 are set forth above. With respect to claims 2-4, Vrabel also teaches that the pesticidal granule can comprise an insecticide (col. 4, line 49).

Vrabel fails to teach a specific example comprising an insecticide and therefore also fails to teach that the insecticide is a pyrethroid, more specifically pyrethrin and bifenthrin. The working examples of Vrabel comprise an oxazole fungicide, see example 1 among others.

Turnbull teaches oxazoles and their use in agricultural compositions. Turnbull also teaches that bifenthrin, pyrethrin and permethrin are all pyrethroid insecticides (col 112, lines 62-67). Accordingly it would have been obvious to one of ordinary skill in the art at the time of the instant invention to combine the teachings of Vrabel and Turnbull to arrive at the instant claimed invention with a reasonable expectation for success. One would be motivated to do so because Vrabel teaches that insecticides can be used in the pesticide granules and Turnbull teaches that bifenthrin, pyrethrin and permethrin are all pyrethroid insecticides. Furthermore, both Vrabel and Turnbull teach the combination of oxazole pesticides with insecticides.

Response to Arguments

Applicant's arguments filed 9/17/2009 in response to the rejection of claims over Vrabel et al. (US 6004904) as well as Vrabel et al. (US 6004904) in view of Turnbull (US 5705516) have been fully considered, but are not persuasive.

Applicant argues that the teachings of Vrabel are inapplicable because Vrabel discusses the use of surfactants in a suspension concentrate, which is a liquid-based formulation and that this teaching does not apply to the dry granule formulations of the claims. Applicant further argues that their invention is not concerned with the even dispersal of emulsions on the cellulose carrier granules but are rather concerned with releasing active ingredients that bind tightly with the granule. Applicant argues that Vrabel does not teach the use of surfactants to release pesticides from solid, cellulosic granular carriers. These arguments are not persuasive.

First it is noted that the comprising or open claim language allows for the presence of a solvent, or any other ingredient as long as the claimed ranges of the required ingredients are met. Secondly, Applicant's arguments are directed to the intended use or properties of the nonionic surfactant. "[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Additionally it is noted that property of preventing the active agent from binding too tightly to the inert granule material is an inherent property of the surfactant itself. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Applicant further argues that Vrabel fails to teach or suggest the use of nonionic surfactants from 4-15%. This argument is not persuasive. Had Vrabel explicitly taught the use of nonionic surfactants in an amount of 4-15%, the rejection would have been made under the statute of anticipation. Rather, because Vrabel generically teach the use of from 0.5 to 15% surfactant, the rejection is made under the statute of obviousness. Applicant has not provided evidence or secondary considerations to rebut the prima facie case of obviousness presented above.

Applicant finally argues that the prior art must suggest the desirability of the claimed invention (MPEP 2143.01). Applicant again argues that surfactants are traditionally used to bring two immiscible materials together into an emulsion, which is the reason the surfactants are used in Vrabel's composition. Applicant argues that they discovered that surfactants can be used for the surprising and unexpected result of using a surfactant to overcome the affinity/binding of the pesticide on the dry carrier material (p. 3 instant specification, 2nd full paragraph). This argument is not persuasive.

The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Vrabel et al. teach that a surfactant is used to act as an emulsifying or wetting agent and the use of at least one surfactant is required because the active ingredients are typically not water soluble (col. 3, lines 55-65). The fact that applicant recognized that the surfactant also has the property of preventing sticking of the active agent to the granule cannot be the basis for patentability as the differences are otherwise obvious. It is noted that applicant has not provided evidence to rebut the above prima facie case.

Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrell et al. (US 5750130, as per applicants' IDS) as evidenced by the Brij® 72 MSDS (Sigma-Aldrich, updated 10/2/2007).

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With respect to instant claim 1 which requires a composition comprising 85-97% by weight of a cellulosic granular carrier, 0.01-10% by weight of at least one agriculturally active ingredient and 4-15% by weight of at least one nonionic surfactant, Ferrell teaches a composition having a cellulosic granular carrier (paper pulp), at least one agriculturally active ingredient (a pesticide or herbicide), and at least one surfactant (see Example 5, also claim 1). In claim 1 Ferrell teaches that the pesticidal product is present in about 0.05 to 7% by weight of the total composition and that the weight ratio of the pesticidal compound to the carrier is from about 40 to 60 to about 70 to 30. The carrier portion of the composition is the portion which may contain the surfactant (col. 4, line 15 also claim 5). Example 5 provides an example with 0.5 to 2.5% of the fungicide Iprodione on paper pulp granules and an example with 1.0-3.4% of the insecticide diazionon on peanut hull granules.

With respect to claim 2 which recites that the agriculturally active ingredient is an insecticide, Ferrell teaches several possible insecticides for use in the composition, see column 2, line 14-column 3, line 5.

With respect to claim 3 which recites that the insecticide is a pyrethroid, Ferrell teaches Permethrin, a pyrethroid insecticide (col. 2, line 58).

With respect to surfactants, Ferrell teaches that surfactants can be used to modify the rate at which the pesticide is released by modifying the hydrophilicity of the carrier materials (col. 4, lines 15-18). Examples of nonionic surfactants taught by Ferrell include tallow amine condensed with 2 moles of ethylene oxide per mole of amine as well as C₁₈₋₂₆alcohols condensed with from about 2 to about 10 moles of ethylene oxide

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per mole of alcohol (col. 4 lines 35-37). These are the same types of surfactants required by instant claim 6. Stearyl alcohol ethylene oxide (2), chemical formula $C_{18}H_{37}(OCH_2CH_2)_2OH$, also known as Brij® 72 is one of the nonionic surfactants taught by Ferrell. It has a melting point between 44 and 45 °C (see page 3, of the Brij® 72 MSDS). This meets the limitations of instant claim 5.

With respect to claim 7 which recites that the composition further comprises at least one agricultural adjuvant, Ferrell teaches the presence of a wax, among other adjuvants (examples 1-5).

The teachings of Ferrell differ from the instant application in that Ferrell does not specifically, but rather generically teaches the invention of the instant application from a finite number of possibilities. Ferrell fails to disclose specifically a range from 4 to 15% by weight of at least one surfactant. However, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to arrive at the claimed pesticidal composition with a reasonable expectation for success based on the teachings of Ferrell. One would have been motivated to do so because Ferrell teaches that the use of surfactants allows one to modify the release rate of the pesticide to the environment by modifying the hydrophilicity of the carrier. The ordinarily skilled artisan would be motivated to adjust the relative amounts of the ingredients in order to arrive at a composition with the desired physical properties, such as release rate of active ingredient, in order to arrive at a composition with maximum pesticidal activity.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrell et al. (US 5750130, as per applicants' IDS) as evidenced by the Brij® 72 MSDS (Sigma-Aldrich, updated 10/2/2007) in further view of Turnbull et al. (US 5705516).

The teachings of Ferrell et al. as evidenced by the Brij® 72 MSDS are set forth above.

Ferrell fails to teach the pyrethroid insecticides pyrethrin and bifenthrin as necessitated by instant claim 4. Ferrell, however, does teach the use of the pyrethroid insecticide permethrin as well as the insecticide diazinon (example 5).

Turnbull teaches that bifenthrin, pyrethrin and permethrin are all pyrethroid insecticides (col 112, lines 62-67). Turnbull also teaches that diazinon is an insecticide (col 113, line 11). Bifenthrin, pyrethrin and permethrin are all pyrethroid insecticides. Bifenthrin, pyrethrin, permethrin and diazinon are all well known insecticides. It is prima facie obvious to substituted one known equivalent for another. Accordingly it would have been obvious to one of ordinary skill in the art at the time of the instant invention to substitute bifenthrin or pyrethrin for either permethrin or diazinon, with a reasonable expectation for success as all four compounds are insecticides.

Applicants' data in the specification has been considered. Applicant provides 16 granular pesticide compositions (1-16, pp. 16-17) which all contain BIODAC® 12/20 granules and varying amounts of trademarked solvents and surfactants and the insecticide bifenthrin. Applicant also provides 17 granular pesticide compositions (17-33, p. 19) which all contain BIODAC® 12/20 granules and varying amounts of trademarked solvents and surfactants and the insecticide permethrin. Compositions 17-

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33 were studied in an ant bioassay. No data exists for compositions 1-16. There are no results present for the two specifically claimed insecticides pyrethrin and bifenthrin (claim 4) in the specification.

Response to Arguments

Applicant's arguments filed 9/17/2009 in response to the rejection of claims over Ferrell et al. (US 5750130) and Ferrell et al. (US 5750130) in view of Turnbull (US 5705516) have been fully considered, but are not persuasive.

Applicant argues that Ferrell teaches granular pesticide compositions wherein a pesticide material is applied to a granular substrate using a carrier composition (surfactant and other materials) which provides improved adhesion of the pesticide to the substrate (granular body) and abrasion resistance. Applicant argues that contrary to this teaching their invention is directed to decreasing adhesion of the pesticide to the substrate. Applicant also argues that "whereas Ferrell teaches the rate of release can be controlled by the amount of water and water solubility of the carrier material, Applicants teach controlling the release rate by modifying the amount of surfactant used." Applicant concludes that Ferrell fails to teach all the suggested claim limitations and that Ferrell alone or in combination fail to teach or suggest that an increased use of surfactant would lead to increased activity of pesticides on cellulosic granular carriers. These arguments are not persuasive.

First it is noted that the comprising or open claim language allows for the presence of additional ingredients as long as the claimed ranges of the required ingredients are met. Accordingly, the presence of a wax or hydrophobic substance which helps to

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improve the adhesion of the pesticide to the substrate is not precluded from the instant claims. Secondly, Applicant's arguments are directed to the intended use or properties of the nonionic surfactant. "[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Additionally it is noted that property of preventing the active agent from binding too tightly to the inert granule material is an inherent property of the surfactant itself. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Furthermore it could be argued that Ferrell teaches the exact same properties of the surfactant as "surprisingly discovered" by applicant. Namely, Ferrell teaches that surfactants can be used to modify the rate at which the pesticide is released by modifying the hydrophilicity of the carrier materials (col. 4, lines 15-18). It is noted that applicant has not provided evidence suggesting that the claimed range of 4 to 15% surfactant is critical or somehow unexpected.

Conclusion

Claims 1-7 are rejected. No claim is allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kortney Klinkel whose telephone number is (571)270-5239. The examiner can normally be reached on Monday-Friday 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached at (571)272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KLK

/Ashwin Mehta/

Primary Examiner, Technology Center 1600